

## SYSTEM-WIDE OPTIMIZATION INTEGRATION MODEL

### ABSTRACT OF THE DISCLOSURE

[162] An optimization system for multi-tiered, heterogeneous server platforms. The system accurately assesses, controls and optimizes performance of systems that include multiple computer servers organized across multiple tiers. The invention provides an efficient user interface for installing, configuring and operating various features of the optimization system. An application programming interface allows users to integrate and adapt the facility for use with any system. Intelligence objects operate at the server node level to dynamically analyze system processes at each server node. The analysis of system processes is extensive and includes hardware, software, operating system and communications. The result of each intelligence object analysis is communicated to all other intelligence objects dynamically throughout each tier. One feature allows an object to generate a number representing a local utilization value. The local utilization value is a measure of one or more performance factors in the computer system hosting the object. The local utilization value can be passed to another computer system hosting a second intelligence object. The other computer system can be in a different tier. The second intelligence object can generate its own local utilization value or can combine its local utilization value with the passed value to create a composite utilization value that reflects more of the performance of the overall system including both computer systems.